

# Fadi I. Wedyan, PhD

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## Summary

Fadi I. Wedyan is an assistant professor of Software Engineering at Hashemite University in Jordan. His research interests include: Software testing, software quality, aspect-oriented testing and development, software design, and mobile computing.

## Education

**June 2011**

**Ph.D. in Computer Science**

Colorado State University, Fort Collins, Colorado, USA

**Dissertation:** Testing with state variable data-flow criteria for aspect-oriented programs

**May 2008**

**Masters of Computer Science**

Colorado State University, Fort Collins, Colorado, USA

**May 1999**

**Masters of Computer Science**

Al-albays University, Al-Mafraq, Jordan.

**Thesis:** Skeletonization and segmentation of handwritten Arabic characters using neural networks

**January 1995**

**Bachelor of Computer Science.**

Yarmouk University, Irbid, Jordan.

## Related Experience

- ❖ June. 2011 – Present      Assistant Professor  
Hashemite University, Department of Software Engineering  
Acting as department chair (Sept 2015-Sept 2016)
- ❖ Aug. 2009 – May. 2011    Research Assistant. Principal Developer  
Developing a cell phone application for Dengue Decision Support System (DDSS).

- ❖ Jan. 2009 – Aug. 2009 Senior Developer  
Colorado Natural Resources and Ecology Lab, Agriculture and Land use Program (ALU).
- ❖ Jul. 2006 – Jan. 2009 Principal Developer  
Colorado Division of Wildlife, Creel Statistical Analysis Program (C-SAP).
- ❖ Aug. 2005 – May. 2006 Teaching Assistant  
Networking and the Internet course. Dept. of Computer Science, Colorado State University.
- ❖ Jun. 2005 – Aug. 2005 Inter-Operability Software Intern  
Spatial Corp, Broomfield, Colorado
- ❖ Jan. 2001 – Jan. 2005 Lecturer  
Jordan University of Science and Technology, Dept. of Computer and Information Systems
- ❖ Sept 1999 – Jan. 2001 Lecturer  
Al-balqa Applied University, Amman College for Engineering Technology, Department of Electrical Engineering
- ❖ Sept. 1998 – Sept. 1999 Developer  
Free Zones Corp, Zarqa, Jordan

## Journals

1. **Wedyan, F.**; Bani-Salameh, H.; Al-Ajlouni; W.; Al-Manai; S., "Investigating the Relationship between Software Defect Density and Cost Estimation: An Empirical Study" Journal of Theoretical and Applied Information Technology, Vol. 82. No. 3, pp. 446-453, December 2015.
2. **Wedyan, F.**; Ghosh, S.; and Vijayasathy, L.; "An Approach and Tool for Measurement of State Variable Based Data-Flow Test Coverage for Aspect-Oriented Programs", Information and Software Technology, Vol. 59, No. 3, pp. 233-254, March 2015.
3. Briceno, L. D.; Siegel, H. J.; Maciejewski, A. A.; Ye Hong; Lock, B.; Panaccione, C.; **Wedyan, F.**; Teli, M. N.; Chen Zhang, "Resource Allocation in a Client/Server System for Massive Multi-Player Online Games", IEEE Transactions on Computers, , Vol. 63, No. 12, pp.3127-3142, December 2014.
4. Bani-Salameh, H.; Alwidian, S.; Hammad, M.; and **Wedyan, F.**; "An Evaluation Model for Social Development Environments", International Journal of Software Engineering and Its Applications, Vol. 8, No.1, pp.323-336, January 2014.
5. Wedyan S.; and **Wedyan F.**; "An Associative Classification Data Mining Approach for Detecting Phishing Websites", Journal of Emerging Trends in Computing and Information Sciences, Vol. 4, No. 12, pp. 888-899, December 2013.

6. Lozano-Fuentes, S; **Wedyan, F.**; Hernandez-Garcia, E.; Sadhu, D.; Ghosh, S.; Bieman, J. M.; Tep-Chel, D.; Garcia-Rejon, J. E.; and Eisen, L.; "Cell Phone-Based System (Chaak) for Surveillance of Immatures of Dengue Virus Mosquito Vectors", *Journal of Medical Entomology*, Vol. 50, No. 4, pp. 879-889, April 2013.
7. **Wedyan, F.**; and Ghosh, S.; "On generating mutants for AspectJ programs", *Information and Software Technology*, Vol. 54, Issue 8, pp. 900-914, August 2012.

## Peer Reviewed Conferences

8. **Wedyan, F.**; Aloqily, I.; Friehat, R., Wedyan, S.; "JoGuide: A Mobile Augmented Reality Application for Locating and Describing Surrounding Sites", *The Ninth International Conference on Advances in Computer-Human Interactions (ACHI 2016)*, pp. 88-94, Venice, Italy, April 24-28, 2016.
9. **Wedyan, F.**; Al-Manai, S.; and Al-Ajlouni, W.; "Toward An Empirical Study to investigate the size-defect Relationship Using ISBSG Repository", *Proceedings of the International Conference on Intelligent Information Processing, Security and Advanced Communication (IPAC'2015)*, ACM, Article 7, 5 pages, Batna, Algeria, November 23-25, 2015.
10. **Wedyan, F.**; Wedyan, S.; and Bani-Salameh, H.; "CodeROID: a Framework for Generating Java Sourcecode Using Tablets and Smartphones", *Proceedings of the 2nd International Conference on Advances in Information Processing and Communication Technology (IPCT)*, pp. 72-77, Rome, Italy, April 18-19, 2015.
11. Lozano-Fuentes, S. ; Ghosh, S.; Bieman, J. M. ; Sadhu, D.; Eisen, L.; Garcia, E. H.; Noguchi, H.; **Wedyan, F.**; and Tep-Chel, D.; "Using Cell Phones for Data Entry to a Dengue Decision Support System", *Proceedings of the 24th International Conference on Software Engineering and Knowledge Engineering (SEKE)*, San Francisco, California, pp. 763-767, July 1-3, 2012.
12. **Wedyan, F.**; and Ghosh, S.; "A Dataflow Testing Approach for Aspect-Oriented Programs", *Proceedings of the 12th IEEE International High Assurance Systems Engineering Symposium (HASE)*, pp. 64-73, San Jose, California, November 1-4, 2010.
13. **Wedyan, F.**; Alrmuny, D.; and Bieman, J. M.; "The Effectiveness of Automated Static Analysis Tools for Fault Detection and Refactoring Prediction", *Proceedings of the 2nd International Conference on Software Testing, Verification, and Validation (ICST)*, pp. 141-150, Denver, Colorado, April 1-4, 2009.
14. Briceno, L.; Siegel, H. J.; Maciejewski, A. A.; Hong, Y.; Lock, B.; Teli, M. N.; **Wedyan, F.**; Panaccione, C.; and Zhang, C.; "Robust Resource Allocation in a Massive Multiplayer Online Gaming Environment", *Proceedings of the Fourth International Conference on the Foundations of Digital Games (FDG 2009)*, pp. 232-239, Port Canaveral, Florida, April 26-30, 2009.
15. **Wedyan, F.** ; and Ghosh, S.; "A Joinpoint Coverage Measurement Tool for Evaluating the Effectiveness of Test Inputs for AspectJ Programs", *Proceedings of the 19th International Symposium on Software Reliability Engineering (ISSRE)*, pp. 207-212, Seattle, Washington, November 11-14, 2008.

16. Briceno, L.; Siegel, H. J.; Maciejewski, A. A.; Hong, Y.; Lock, B.; Teli, M. N.; **Wedyan, F.**; Panaccione, C., and Zhang, C.; "Resource Allocation in a Client/Server Hybrid Network for Virtual World Environments", Proceedings of the 17th International Heterogeneity in Computing Workshop (HCW'08), pp. 1-13, Miami, Florida, April 2008.

## **Awards**

1. Dawakom: An application for finding medications and locating pharmacies, 8th Annual National Technology Parade, University of Jordan, Second Prize, April 2015.
2. Taxi Finder: A Smartphone Application for Locating and Requesting a Taxi, 5th Annual National Technology Parade, Hashemite University, First Prize, May 2012.
3. Robust Resource Allocation in a Client/Server Hybrid Network of Virtual World Environments, 2nd Place, ISTECS Student Research Poster Contest, Colorado State University. April 7, 2008.
4. Reliable Universal IP Multicast Delivery, 1st place (Students choice), First Annual CS Graduate Research Symposium, Colorado State University, April 7, 2005.

## **Research Funding and Grants**

1. PI. "Developing a handy and low cost medical system to take images of the Ocular fundus".  
Funding agency: Scientific Research Support Fund (SRSF), Jordan  
January 2016- January 2018, 36,000 JD ( $\approx$  50,000 \$)
2. PI. "Generating Higher Order Mutants Using Genetic Algorithms".  
Funding agency: Hashemite University, Jordan  
March 2015-March 2016, 3700 JD ( $\approx$  5,500 \$)
3. PI. "CodeRoid: a Framework for generating Java Sourcecode for Tablets and Smartphones".  
Funding agency: Hashemite University, Jordan  
Jan 2014-Jan 2015, 1400 JD ( $\approx$  2,000 \$)

## **Supervised Masters Theses**

1. "Empirical Evaluation of the impact of Design Patterns on Software Quality", Student: Somia Abufakher, December 2015.
2. "Generating Higher Order Mutants Using Genetic Algorithms", Student: Anas Abo Aljadayl, Spring 2016.

## **Journals/Conferences Reviewer/TPC Member:**

- Journal of Computer Science
- American Journal of Applied Sciences
- International Journal of Computer and Information Technologies
- Technical reviewer and TPC for the following conferences:

ICICS 2017, ICICS 2016, ICICS 2015, ICICS 2014

## **Courses Taught**

- ❖ Software Testing (Masters)
- ❖ Software Architecture and Design (Masters)
- ❖ Software Testing (undergrad)
- ❖ Software Design (undergrad)
- ❖ Object-Oriented Programming (undergrad)
- ❖ Operating Systems (undergrad)
- ❖ Visual Programming (undergrad)
- ❖ Web Programming (undergrad)
- ❖ Introduction to Software Engineering (Undergrad)
- ❖ Introduction to Programming (undergrad)

## **Research Interests**

Software testing, software quality, aspect-oriented testing and development, software design, and mobile computing.

## **Organizations**

- ❖ IEEE, member since 2008.
- ❖ Green Peace organization, member since 2008.

## **REFERENCES**

*Available upon request*